### [.NET Framework versions](https://learn.microsoft.com/en-us/dotnet/framework/migration-guide/versions-and-dependencies" \l "net-framework-481)

### .NET Framework 4.8.1

|  | **Versions** |
| --- | --- |
| **CLR** | 4 |
| **Windows** | ➕ 11 ➕ 10 November 2021 Update ➕ 10 May 2021 Update ➕ 10 October 2020 Update |
| **Windows Server** | ➕ Windows Server 2022 |

.NET Framework 4.8.1 introduces new features in the following areas:

* [Native support for Arm64](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#arm64native481)
* [WCAG2.1 compliant accessible tooltips](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#wpf481)
* [Windows Forms – Accessibility Improvements](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#winforms481)

### .NET Framework 4.8

| **Versions** |
| --- |
| **CLR** | 4 |
| **Windows** | ✔️ 11 ✔️ 10 November 2021 Update ✔️ 10 May 2021 Update ✔️ 10 October 2020 Update ✔️ 10 May 2020 Update ✔️ 10 November 2019 Update ✔️ 10 May 2019 Update ➕ 10 October 2018 Update (Version 1809) ➕ 10 April 2018 Update (Version 1803) ➕ 10 Fall Creators Update (Version 1709) ➕ 10 Creators Update (Version 1703) ➕ 10 Anniversary Update (Version 1607) ➕ 8.1 ➕7 |
| **Windows Server** | ✔️ Windows Server 2022 ➕ Windows Server 2019 ➕ Windows Server, version 1809 ➕ Windows Server, version 1803 ➕ 2016 ➕ 2012 R2 ➕ 2012 ➕ 2008 R2 SP1 |

.NET Framework 4.8 introduces new features in the following areas:

* [Base classes](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#core48)
* **Reduced FIPS impact on Cryptography**.
* [Windows Communication Foundation (WCF)](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#wcf48)
* **Introduction of ServiceHealthBehavior. It** is a WCF service behavior that extends **[IServiceBehavior](https://learn.microsoft.com/en-us/dotnet/api/system.servicemodel.description.iservicebehavior)**
* [Windows Presentation Foundation (WPF)](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#wpf48)
* **High DPI enhancements**
* [Common language runtime](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#clr48)
* **Improvements to the JIT compiler**
* **NGEN improvements**. **Antimalware scanning for all assemblies**.

### .NET Framework 4.7.2

| **Versions** |
| --- |
| **CLR** | 4 |
| **Included in Visual Studio** | 20191 |
| **Windows** | ✔️ 10 October 2018 Update (Version 1809) ✔️ 10 April 2018 Update (Version 1803) ➕ 10 Fall Creators Update (Version 1709) ➕ 10 Creators Update (Version 1703) ➕ 10 Anniversary Update (Version 1607) ➕ 8.1 ➕7 |
| **Windows Server** | ✔️ Windows Server 2019 ✔️ Windows Server, version 1809 ✔️ Windows Server, version 1803 ➕ Windows Server, version 1709 ➕ 2016 ➕ 2012 R2 ➕ 2012 ➕ 2008 R2 SP1 |

.NET Framework 4.7.2 includes new features in the following areas:

* [Base classes](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#core-472)
* **New overloads of RSA.Create and DSA.Create,**
* **Rfc2898DeriveBytes constructors accept a hash algorithm name,**
* **Support for ephemeral keys,**
* **Programmatic creation of PKCS#10 certification signing requests and X.509 public key certificates**
* **New SignerInfo members,**
* **Leaving a wrapped stream open after CryptoStream is disposed**
* **Decompression changes in DeflateStream**
* **Additional collection APIs**
* [ASP.NET](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#asp-net472)
* **Support for dependency injection in Web Forms,**
* **Support for same-site cookies**
* [Networking](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#net472):-
* **Implementation of HttpClientHandler properties**
* [SQL](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#sql472)
* **Support for Azure Active Directory Universal Authentication and Multifactor authentication.**
* **Support for Always Encrypted version 2.**
* [WPF](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#wpf472)
* **Finding ResourceDictionaries by Source**
* **Finding ResourceDictionary owners**
* **Finding StaticResource references**
* [ClickOnce](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#clickonce)

### .NET Framework 4.7.1

| **Versions** |
| --- |
| **CLR** | 4 |
| **Windows** | ✔️ 10 Fall Creators Update (Version 1709) ➕ 10 Creators Update (Version 1703) ➕ 10 Anniversary Update (Version 1607) ➕ 8.1 ➕7 |
| **Windows Server** | ➕ Windows Server, version 1803 ✔️ Windows Server, version 1709 ➕ 2016 ➕ 2012 R2 ➕ 2012 ➕ 2008 R2 SP1 |

.NET Framework 4.7.1 includes new features in the following areas:

* [Base classes](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#core471)
  + **Support for .NET Standard 2.0**
  + **Support for configuration builders**
  + **Run-time feature detection**
  + **Value tuple types are serializable**
  + **Support for read-only references**
* [Common language runtime (CLR)](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#clr)
  + **Garbage collection performance improvements**
* [Networking](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#net471)
* **SHA-2 support for Message.HashAlgorithm**
* [ASP.NET](https://learn.microsoft.com/en-us/dotnet/framework/whats-new/#asp-net471)
  + **Execution steps in ASP.NET applications**
  + **ASP.NET HttpCookie parsing**
  + **SHA-2 hash options for ASP.NET forms authentication credentials**